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REMARKS

Claims 1-28 are pending in the present Application. Claims 13-28 have been withdrawn, Claim 4 has been canceled, Claims 1 and 8 have been amended, and no Claims have been added, leaving Claims 1-3 and 5-12 for consideration upon entry of the present Amendment.

The Specification has been amended to correct certain typographical errors. Specifically, paragraph [0056] of the specification has been amended to correct an inadvertent typographical error.

Claim 1 has been amended to include the limitations of Claim 4, which has accordingly been canceled with the entry of the present Amendment. Support for this amendment is found in original Claims 1 and 4, and in the specification at paragraph [0015].

Objected-to Claim 8 has been amended to properly depend from Claim 7. Support for this amendment is found in original Claims 7 and 8, and in the specification at paragraph [0059].

No new matter has been introduced by these amendments. Reconsideration and allowance of the Claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 102(e)

Claims 1 and 7 stand rejected under 35 U.S.C. § 102(e), as allegedly anticipated by U.S. Patent No. 6,741,221 ("Aisenbrey"). Applicants respectfully traverse this rejection.

Aisenbrey discloses antennas with a radiating antenna element and ground plane formed from conductive loaded resin based materials, and separated by insulating standoffs. (Col. 4, lines 52-58). The conductive loaded resin based materials comprise micron conductive powders of metals or nickel plated carbon fiber, loaded in a plastic resin, silicone, or resin-based rubber. (Col. 3, lines 22 to 33). The conductive loaded resin based materials have a conductivity of about 5 to about 25 ohms per square. (Col. 3, lines 12-14).

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Aisenbrey discloses, in Fig. 2A, a "layer of insulating material 22 between both the irradiating antenna element 12 and the counterpoise antenna element 10," or alternatively, in Figs. 4A and 4B, discloses "a separation between the plates 46 provided by insulating standoffs 60", as the Examiner has noted. (Col. 4,

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lines 27-30 and lines 52-58). In Figs. 4A and 4B of Aisenbrey, the insulating standoff is further depicted as what may best be described by one skilled in the art as a post in perspective view, having a uniform dimension in the plane of the plates as shown, and a dimension orthogonal to the plane that is not substantially greater than the dimension in the plane of the plates. Aisenbrey otherwise provides no further written description of either the layer or of the insulating standoff, and therefore fails to describe an insulating standoff as a structure other than the posts depicted in Figs. 4A and 4B. One skilled in the art will appreciate that a rib, as claimed in instant Claim 1 and as depicted in cross-section in original Figures 1 and 2 of the instant application, has a long axis approximately orthogonal to two shorter axes and substantially longer than the short axes, and is used in the instant application to provide a cellular structure. Aisenbrey depicts an open space punctuated by posts in Figs. 4A and 4B. Therefore neither a layer as described for Fig. 2A, nor an insulating standoff as depicted in Figs. 4A and 4B, describes the ribs of the instant claims. Thus, Aisenbrey fails to disclose all elements of the instant Claim 1 and its dependents.

Reconsideration and withdrawal of this rejection are therefore respectfully requested.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 2-6 and 8-12 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 6,741,221 ("Aisenbrey"). Claims 1-12 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 4,773,534 ("DeHeras") in view of U.S. Patent No. 5,360,658 ("Schmitz"). Claims 1-12 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 6,680,350 ("Dobler"), also in view of Schmitz. Applicants respectfully traverse these rejections.

DeHeras discloses a printed circuit board transporter having a structural outer layer fabricated from conductive polypropylene, which has an outer surface held to an inner surface by a plurality of integral I-beam members. (Col. 2, lines 24-31).

Schmitz discloses extruded sheets containing polycarbonate, polyalkylene terephthalate, and carbon black. (Col. 1, lines 10-16). Preferred are conductive carbon blacks. (Col. 4, lines 33-35). The sheets have antistatic properties. (Col. 1, lines 17-18).

Dobler discloses molding compositions of transparent thermoplastic polymers and phthalocyanines or naphthalocyanines. (Col. 1, lines 5-7). The molding compositions are used

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in preparing a glazing having absorbance in the near infrared (NIR). (Col. 8, lines 3-5). The molding compositions may also be used in extruded twin- or multiwall sheets. (Col. 10, lines 15-16).

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Aisenbrey, for the reasons given above, fails to disclose all elements of independent Claim 1 upon which Claims 2-6 and 8-12 depend. Further, as discussed above, Aisenbrey teaches posts in Figs. 4A and 4B, shows an open space between plates Figs. 4A and 4B, and discloses "a separation between the plates 46 provided by insulating standoffs 60", as the Examiner has noted. (Col. 4, lines 52-58). Aisenbrey also fails to teach or suggest the specific structural element of the ribs of Claim 1. Aisenbrey thus fails to disclose, teach, or suggest all elements of the instant claims. Applicants therefore respectfully request the Examiner reconsider and withdraw this rejection.

DeHeras specifically discloses that the circuit board carrier is fabricated from conductive polypropylene. (Col. 1, lines 24-26). DeHeras does not disclose or teach the use of plastics generally as a fabrication material and fails to disclose or suggest any alternate fabrication materials. Further, DeHeras does not teach that a circuit board carrier fabricated from any alternate fabrication materials would meet the 30" drop test requirement per Federal Test Standard 101C, Method 5007.1 as disclosed in DeHeras. (Col. 3, lines 16-18). Polypropylene is not claimed in amended instant Claim 1, and therefore DeHeras also fails to teach any of the thermoplastic polymers of the instant claims. Schmitz discloses surface resistance of its extruded polycarbonate sheets of 5×10^5 ohms and an elongation at break of greater than or equal to 20%. (Col. 2, lines 18-19). However, Schmitz fails to provide evidence to suggest the molding

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composition possesses properties to encourage a reasonable expectation that combining the polycarbonate sheets of Schmitz with the invention of DeHeras would result in a circuit board carrier that meets performance requirements such as the 30" drop test. Thus, DeHeras neither provides a suggestion or incentive to combine references with the composition of Schmitz, nor provides a reasonable expectation of success for the combination. Thus, there is no suggestion or incentive to combine these references, and no reasonable expectation of success for the combination were the references to be combined. Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Dobler, while disclosing multiwall sheets generally, provides no other disclosure relating to multiwall sheets, and thus fails to disclose, either generally or specifically, any structural features of the multiwall sheets. (Col. 10, lines 15-16). Dobler thus fails to specifically disclose the plurality of ribs of the instant claims as a structural element of the multiwall sheets. Schmitz discloses conductive polycarbonate sheets, but fails to disclose or teach multiwall sheets, and further does not disclose the plurality of ribs as claimed in amended instant Claim 1. Thus, the combination of Dobler with Schmitz fails to disclose or teach all elements of the instant claims.

In addition, and as the Examiner has noted, Dobler does not disclose the use of conductive filler as an additive, but instead discloses near-infrared glazing compounds. (Col. 8, lines 3-5). Dobler discloses that the molding composition have the "advantageous properties of the unmodified transparent thermoplastic polymer", including "high lightfastness, low cloud, and good mechanical properties." (Col. 8, lines 11-14). Dobler further discloses that additives, such as fillers as noted by the Examiner, "can be incorporated into the molding compositions according to the invention", and at levels of "up to 5 wt% each". (Col. 8, lines 27-30 and 37-44). Schmitz discloses polycarbonate sheets with "a minimum carbon black content of 13%" to maintain the desired elongation at break properties (emphasis added). (Col. 2, lines 38-40). Thus, Schmitz teaches the use of an amount of carbon black that is more than a factor of two in excess of the maximum amount of filler taught in Dobler, thus implying that combining with Schmitz can undesirably affect the properties of the unmodified transparent polymer of Dobler. The combination of Dobler with Schmitz therefore fails to provide a reasonable expectation for success for the combination. Further, the mismatch in the amount of filler in Dobler and carbon black in Schmitz does not provide either a suggestion or incentive for combining these

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references. Therefore, for at least the above reasons, the combination of Dobler with Schmitz does not disclose, teach, or suggest the invention of instant Claims 1-12, does not provide a suggestion or incentive for combining these references, and fails to provide a reasonable expectation for success for the combination of references. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the objection(s) and rejection(s) and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 50-3621.

Respectfully submitted,

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